new balance

EX²

902

User Manual

NM-705.1

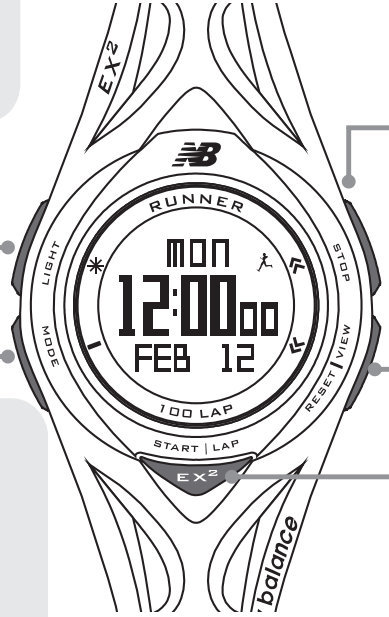
www.newbalance-watch.com

1 Design of the Watch

Thank you for purchasing this watch. Please read this manual thoroughly before using the watch!

[EL] EL Button
- To turn on the EL back light for about 3 seconds.

[S] Stop
- To activate the 'stop' function in Exercise, Count Down Timer Mode. Press to activate the 'stop' function.
- To increase the setting value during setting display



[R/V] Reset / View Button
- To select different sub-functional displays in the Workout Mode.
- To reset counting in the Workout Mode.
- To decrease the setting value during setting display.

[M] Mode Button
- To select among function modes: Home Time, Workout, Daily alarm, Countdown timer and Dual time.
- Hold down to select/exit setting display in the following modes: Home Time, Workout, Daily alarm, Countdown timer and Dual time.
- To select among different setting items in setting mode.

[S/L] Start / Lap Button
- To activate the 'start' function in the Workout and Timer Modes.
- To take Lap records when the chronograph is running.

2 Specifications

Time Mode

- Time System: am, pm, hour, minute, second
- Time Format: 12-hour or 24-hour format
- Calendar Range: 2000~2099

Alarm Mode

- Daily alarm and hourly chime
- Alarm Sound: 30 seconds

Workout Mode

- Heart rate measuring range: 30 to 240 bpm.
- Hear Rate Alert Zone:
  3 Pre-defined and 1 user defined.
- Auto-calibration or manual input of stride length.
- Above / below heart rate zone alert
- Workout Timer: Max 23H59M59S
- Distance: 99.99 km / 63.13 mile
- Step: Max 99,999
- Calorie: Max 9,999 kcal

Recall Mode

- Store up to 10 segments and up to 100 lap records
- Each Segment summary contains: time stamp, total lap no., Workout time, average pace, calorie consumption, distance, average speed, max HR, average HR, step and above/on/below zone timer
- Each Lap Record contains: split time, lap time, distance, average pace, average HR and average speed within the lap
- Odometer function

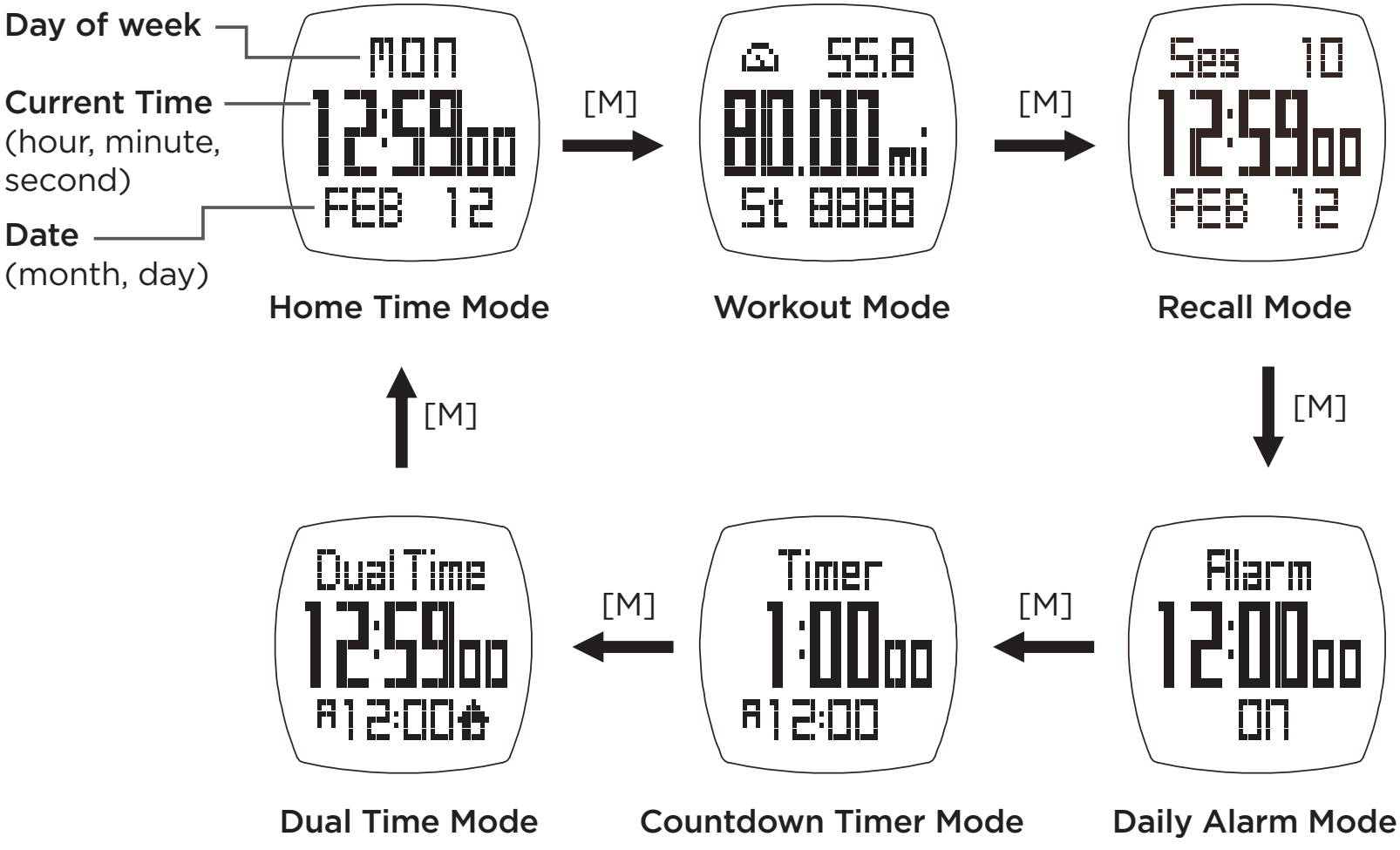
Timer Mode

- Resolution: 1 second
- Measuring range: 23H59M59S

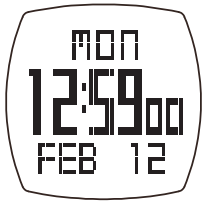
Others

- Back Light Type: Electro-Luminescent (EL) back light
- 10 LCD level contrasts adjustable
- Metric / Imperial unit selectable
- 5 ATM water resistance

3 Major Function Modes



4 Time Set Mode

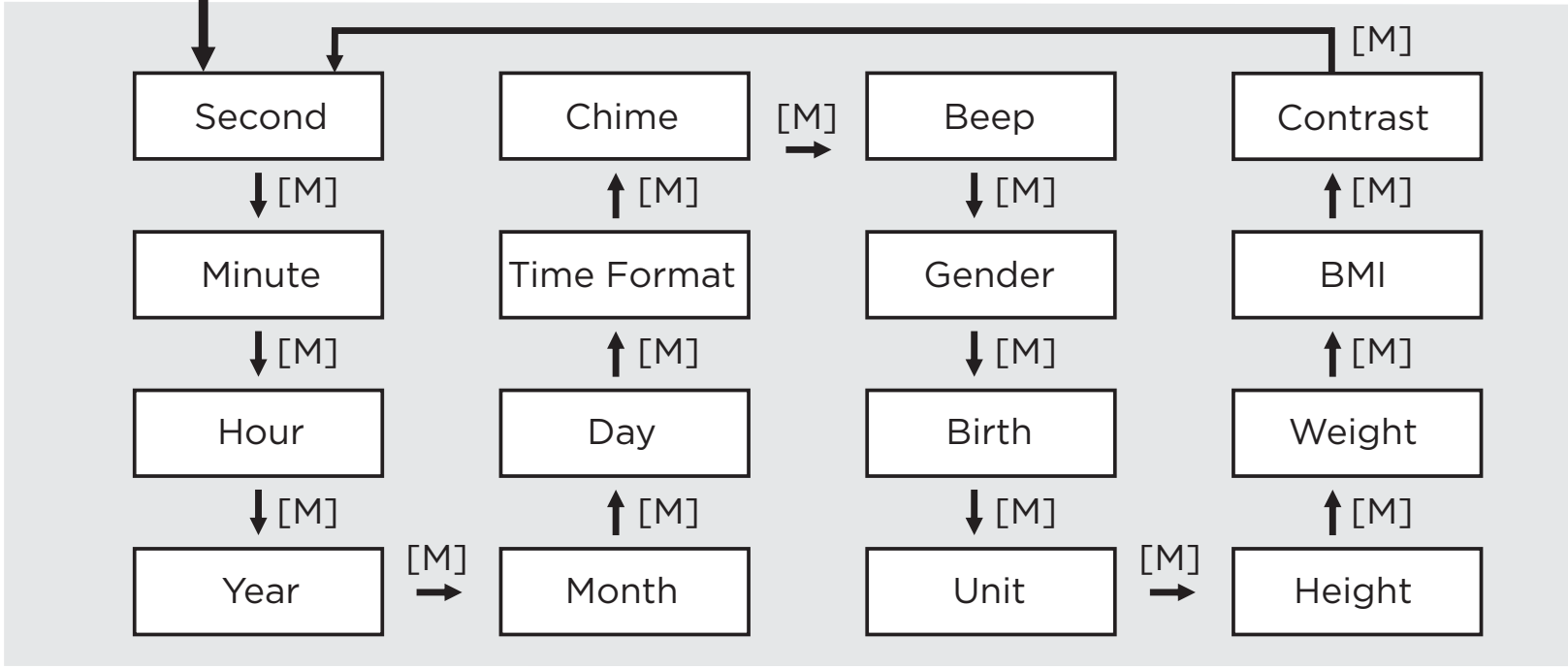


Home Time Mode

hold [M] hold [M]

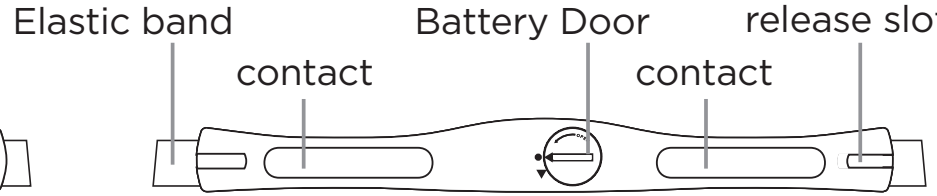
How to Select a Time Set

- To select Time Setting Mode, hold down [M] for about 2 seconds in Home Time Mode.
  - Press [M] to move the selection among these 16 settings refer to the adjacent diagram.
  - Press [S] or [R/V] to adjust the value.
  - Hold down [M] to exit the Time Setting Mode.
  - Chime-when this function is on, audible sound will be heard at zero minute hourly.
  - Beep-when this function is on, audible sound will be heard as key is pressed.



5 Workout Mode - Precaution/Tips for Heart Rate Measurement

Front View



Back View

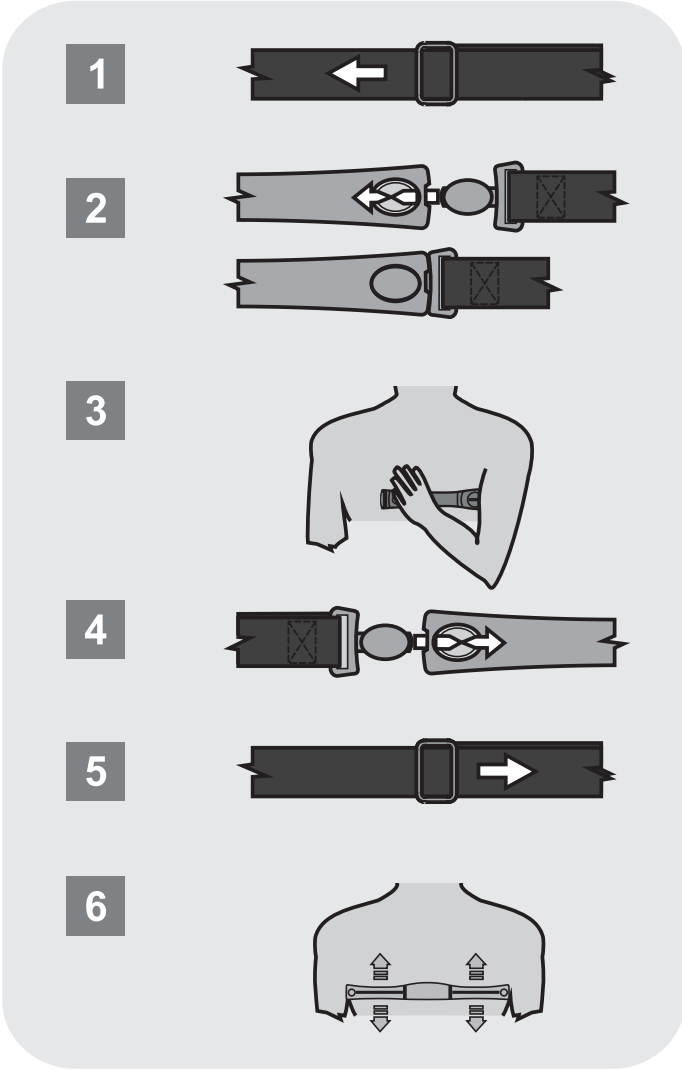
Heart Rate Features

- This Watch supports 5.3kHz chest strap (not included in this packaging), thus, with chest strap, this Watch can provide a continuous supply of heart rate data like current heart rate, average heart rate and maximum heart rate to user for guiding them to achieve their fitness goal.

Precautions / Tips

- There is two contacts located on the back of the Chest Strap. These two contacts must be firmly contacted with the user's skin during measurement.
- DO NOT take heart rate measurement when diving or under water.
- Clean the contacts occasionally by applying a few drops of water, and wipe it dry with a paper towel to remove any residual grease.
- DO NOT use hand cream; it will insulate the signal between the skin and the contacts.
- Clean your skin with soap and water for better signal transmission.
- For those with extremely dry skin, apply some conductive gel or water may help.
- Adjust the Chest Strap with the supplied elastic band until it is hold on your chest firmly to avoid loosen it when doing exercise.
- Avoid doing any awkward motion during measurment, otherwise error may be resulted.

5.1 Workout Mode - Wearing the chest strap



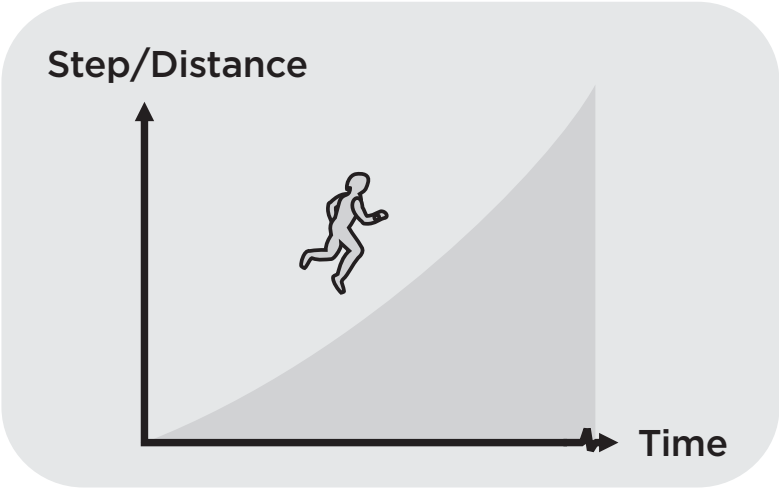
How to Wear the Chest Strap

- Refer to the below steps to wear the chest strap on one's chest:
  1) Extend the elastic band for allowing a loose fitting the chest strap on your chest.
  2) Connect one connector with the chest strap. Ensure that the connector is completely lodged into the chest strap.
  3) Fit the chest strap on your chest with one hand.
  4) Connect the opposite connector to the chest strap with the another hand.
  5) Fasten the elastic band until it is fitted on your chest comfortably.
  6) Adjust the chest strap until the two contacts are firmly contacted with your skin.

IMPORTANT: DO NOT wearing the chest strap over your cloth, otherwise the chest strap CANNOT get the heart rate signal.

NOTE: In dry seasons, wetting the contacts with some water can make the signal transmission better.

5.2 Workout Mode - Healthier Lifestyle and Pedometer



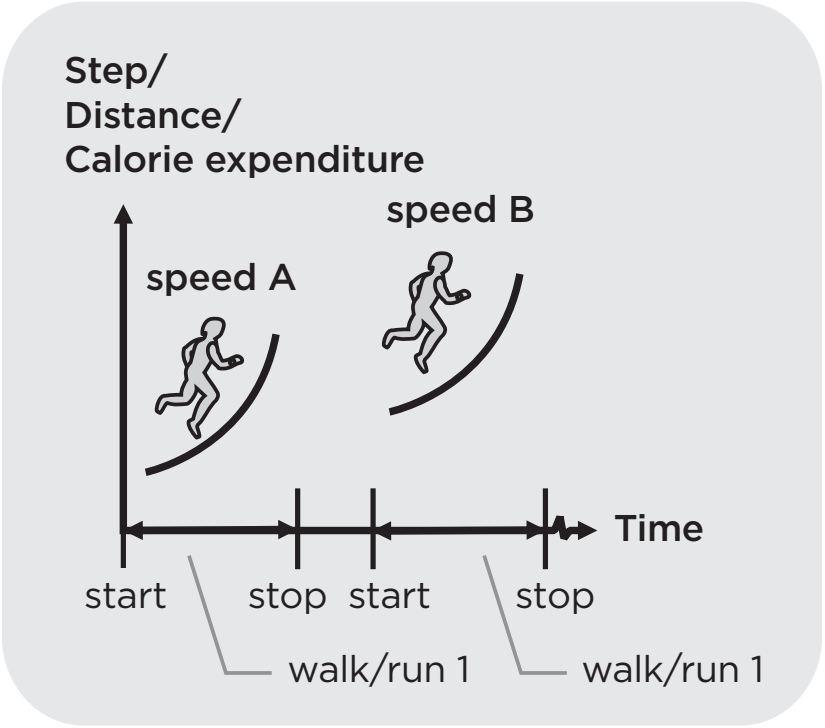
Tips to achieve a Healthier Lifestyle

- The below are the general guide for achieving a healthier lifestyle:
  - Take enough sleep,
  - Make social connection,
  - Do more exercise,
  - Take a daily walk, and
  - Eat balanced diet.

How to Increase Walking Steps

- It is suggested that walking could make contribution to health. Some tips which would increase your walking steps:
  - Walk to your office by getting off the bus earlier or park your car farther away from your office.
  - Establish a walking habit every day.
  - Walking with some soft music or friends.
  - Set up a goal (How many km within a week) for your walking.

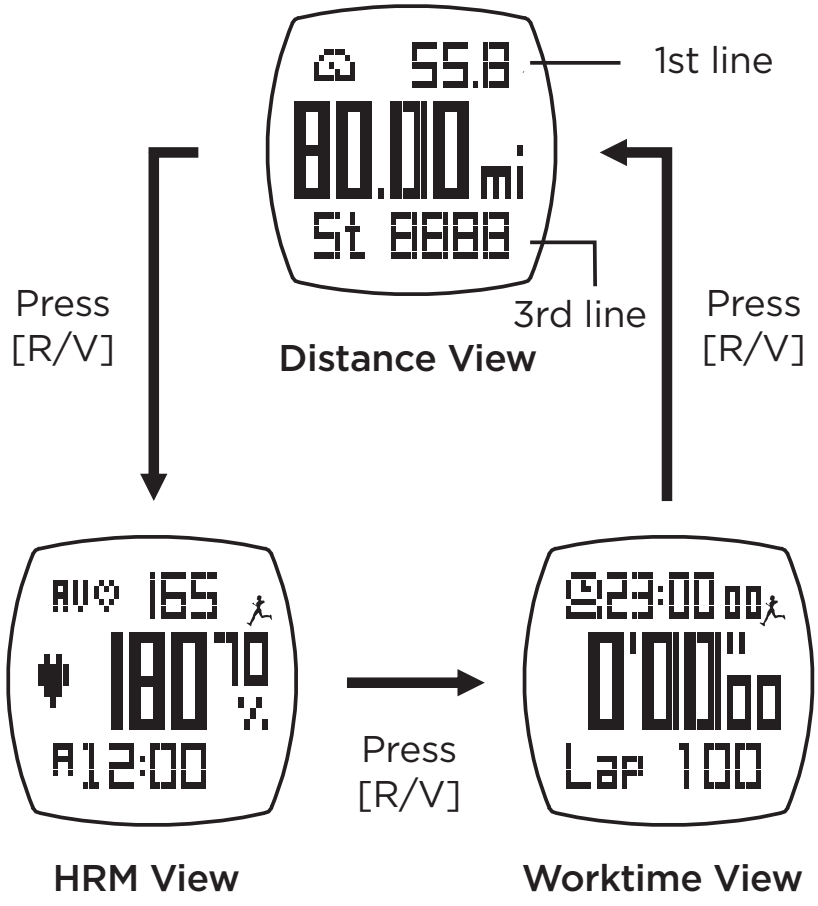
5.3 Workout Mode - What is a Pedometer



Pedometer Features

- This Watch provides some advanced pedometer features for guiding user to achieve his/her fitness goals.
- The information includes distance, speed, exercise time and calorie expenditure for walk or run. The data can be read instantly or saved into a record for recall later.

5.4 Workout Mode



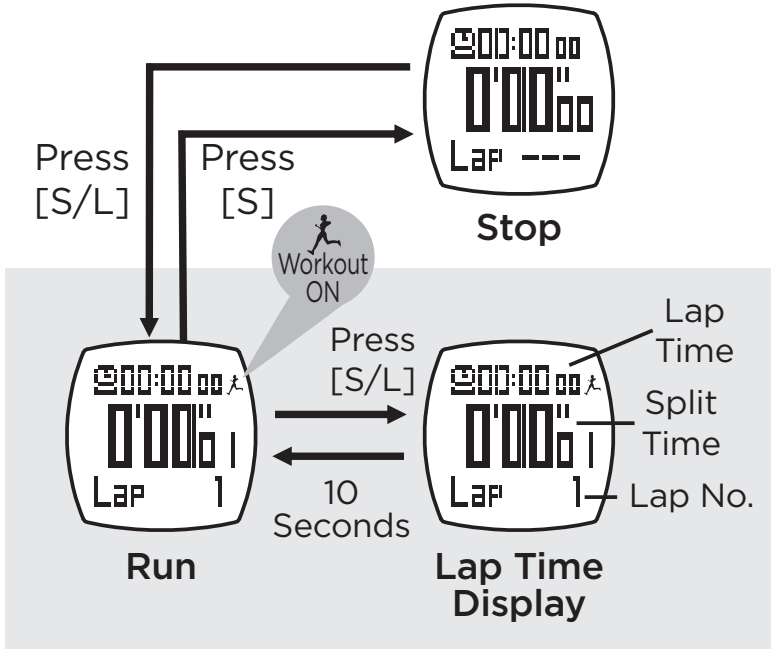
Workout Mode

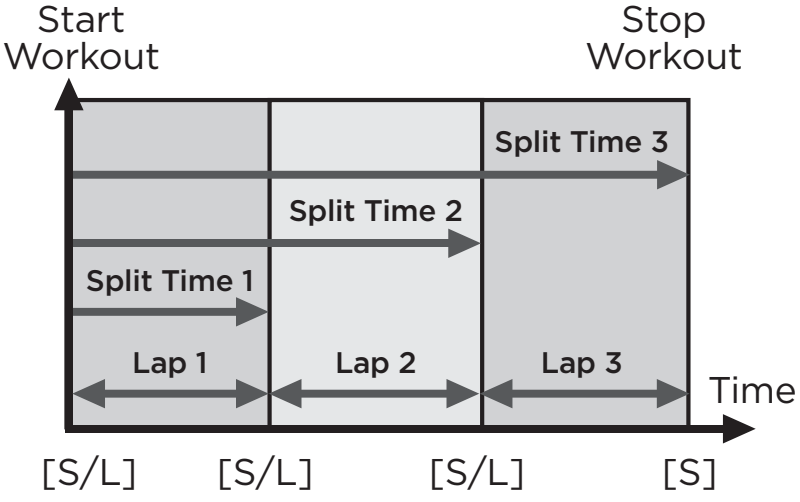
Under workout mode, users can select those sub-functions by pressing [R/V] button:

- Distance view
- HRM view
- Worktime view

The 1st and 3rd line display can be customised by user, refer to chapter 5.7.1 for the selection.

5.5 Workout Mode - Operation





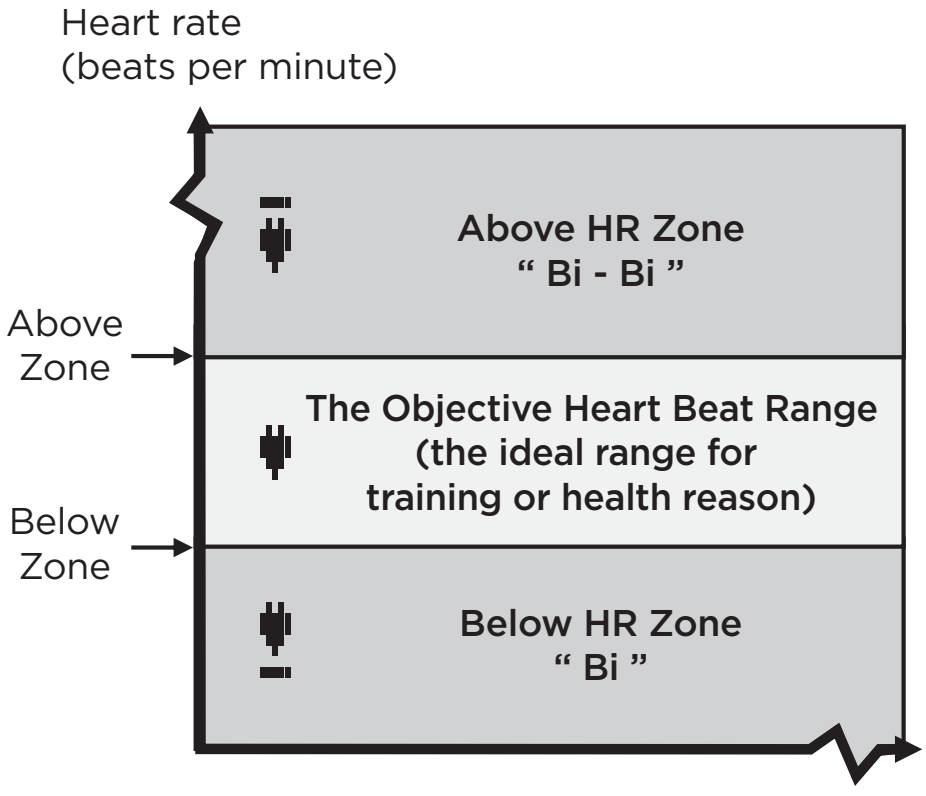
How to Turn ON/OFF the Exercise Function

- Five seconds after Workout Mode is selected, the Heart Rate function will be turned ON automatically but workout function hasn't been turned ON yet.
- Press [S/L] to turn on the workout.
- When workout function is turned ON, workout data will be updated yet.
- The Heart Rate measurement will be STOPPED automatically if NO 'heart rate' is detected for 5 minutes.
- Press [S/L] can make a lap record.
- As workout is finished, press [S] to turn off the workout. Hold [R/V] to reset the current workout and saved into recall mode.

NOTE:

1) The Chest strap/Watch MUST be worn on the user's chest/wrist properly before heart rate/pedometer measurement.
2) User can use the Watch without the chest strap, then NO heart rate data will be recorded for that exercise session.
3) When segment or lap memory is not available. The oldest segment will be deleted automatically to spare memory.

5.6 Workout Mode - Heart Rate Alert



The Objective Heart Beat Range (the ideal range for training or health reason)

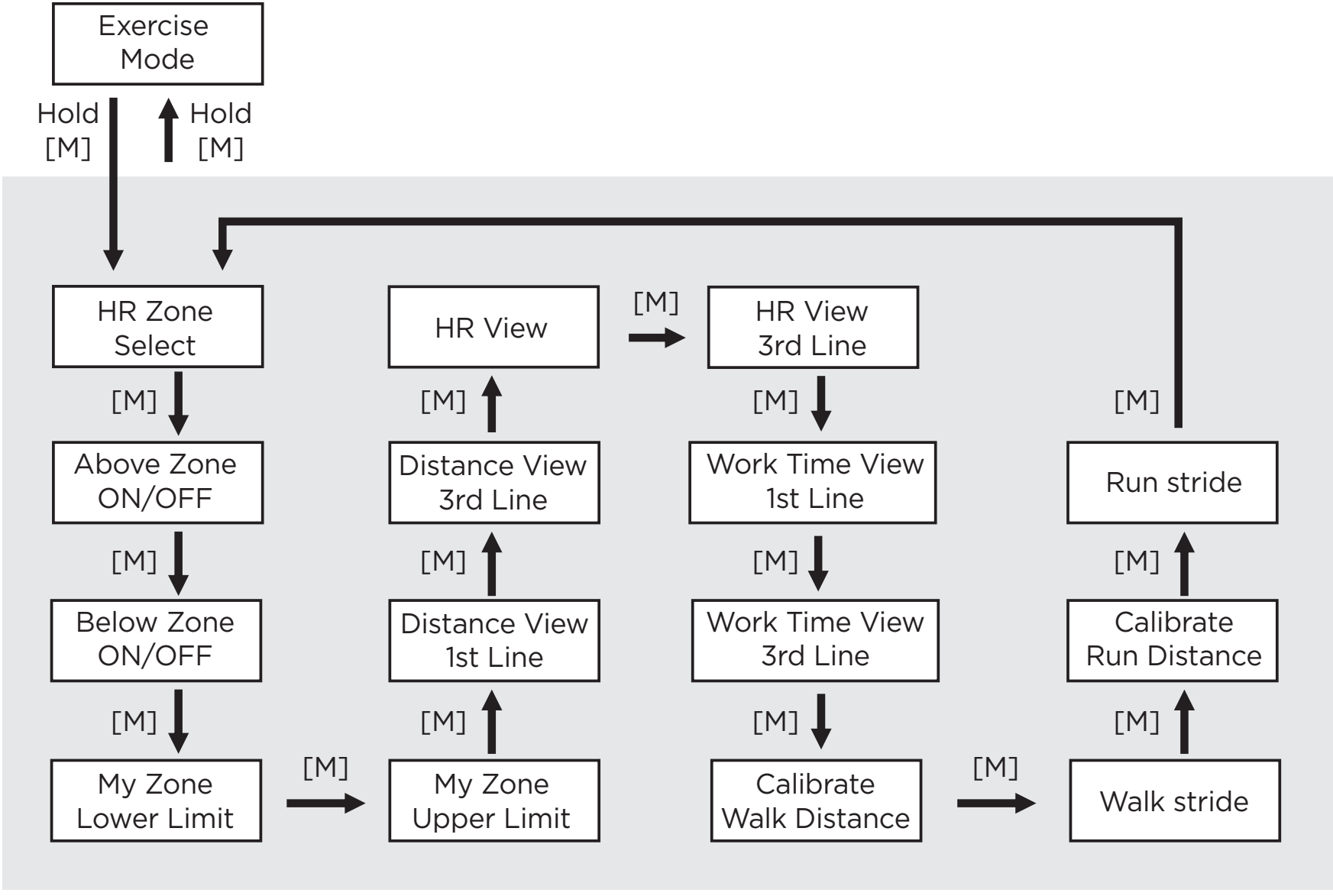
WARNING: Consult a doctor or trainer for setting the zone prior to undergo an serious Cardo-fitness training.

- The Heart Rate Alert feature is a supplementary feature of the Heart Rate Measurement function. This feature can be function by setting a objective heart rate range, and hence, the Watch will alert the user when he/she gets a heart rate measurement which is out of the objective heart rate range.
- In order to hear the audible alert of above and below zone alert, zone alert shall be turned on. (refer to 5.8.1)

How to Acquire the Objective Heart Rate Range

- The objective heart rate range is the region that binding by the upper and lower heart rate limits. These limits must be set according to application and on one's own health condition.
- These limits can be obtained by the following:
  1) Get these two limits by consulting a doctor or trainer.
  2) Get these two limits by %EMHR

5.7.1 Workout Mode - Setting Sequence



5.7.1 Workout Mode - Setting Sequence

Lap No.	Lap No.	Lap 1
Work Time	Work Time	0:00 00
Lap Time	Lap Time	0:00 00
Speed	Speed	0.0
Speed - Average	Speed-AVG	AV 0.0
Pace	Pace	00:00
Pace - Average	Pace-AVG	AV 00:00
Distance	Distance	0.00
Step	Step	St 0
HR	HR	90
HR - Average	HR-AVG	AV 90
HK Zone - Above	HRZ-ABOVE	0:00 00
HR Zone - In	HRZ-IN	0:00 00
HR Zone - Below	HRZ-BELOW	0:00 00
Calorie	Calorie	0KC
Time	Time	A12:00

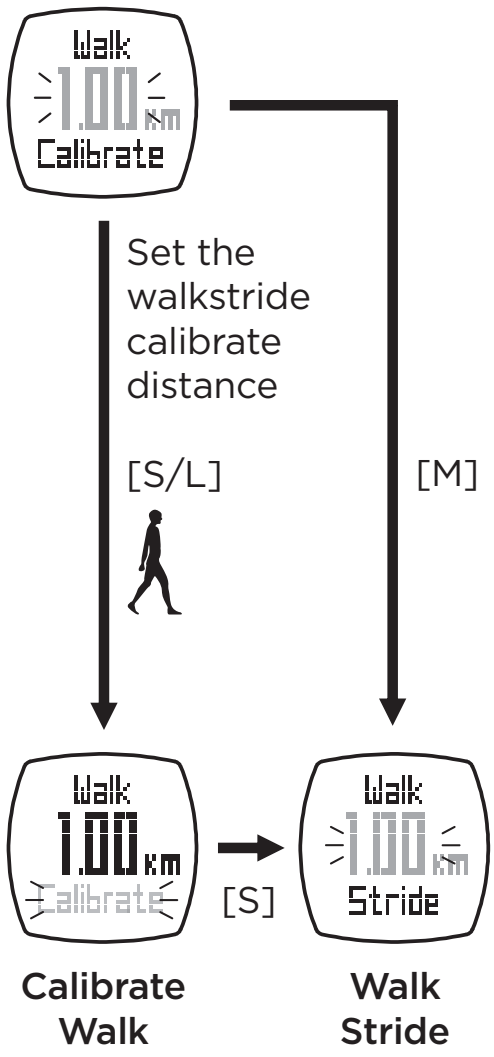
To Set the Workout Mode

- Press and hold the [M] button under workout mode to select the 'Setting' display.

The Setting Sequence

- If one of the settings is flashing, press the [S] or [R/V] button to change the value(hold the button to change the value at a faster pace).
- To calibrate 'Walk' and 'Run' stride, see next chapter for details.
- Above HR Zone and Below HR Zone can refer to 5.6 for more details.
- In figure show the selection of 1st and 3rd line display.

5.7.2 Workout Mode - Setting Mode - Walk and Run stride



Walk and Run Stride

- To get the accurate walk and run speed and distance calculation, user need to enter their personal walk and run stride.
- User can enter their personal walk and run stride by selecting auto or manual calculation.

To auto set the Walk and Run Stride

- Select 'Calibrate walk or run distance' setting under workout setting mode.
- Input the known distance by pressing [S] or [R/V].
- Press [S/L] to start calibrating.
- User start to walk or run for the specific distance.
- When reaches, press [S] to finish calibration
- The watch will automatic calculate the walk/run stride.

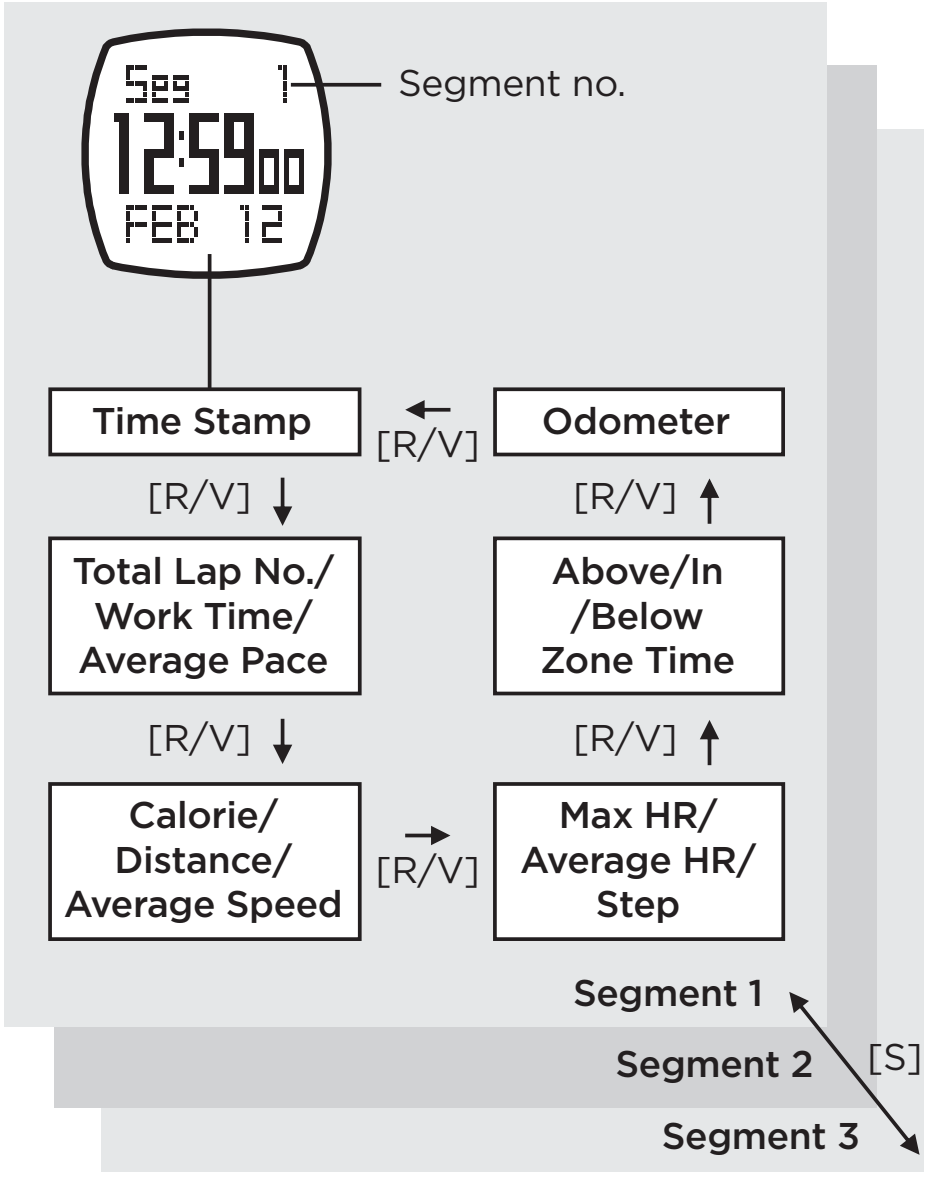
To manual set the Walk and Run Stride

- Select 'Calibrate walk or run stride' setting under workout setting mode.
- Press [M] to enter 'Walk' or 'Run Stride' display
- When the digit is flashing, press [S] or [R/V] to enter the value of the stride.

5.8 Workout Mode - Potential Causes for NO Heart Rate Reading or Long Response Time

1) **Cause: Dry Skin.**
   Solution: Apply conductive gel or saliva thoroughly to chest area. Even water will help if conductive gel is not available.
2) **Cause: Chest strap is not placed firmly over the chest.**
   Solution: Make sure the chest strap is placed firmly over the chest by tightening elastic band.
3) **Cause: Muscle tremors caused by holding the Chest strap too hard on your chest.**
   Solution: The contacts must make firm contact (NOT too hard) with the user's skin during measurement. This will ensure good and consistent readings even while walking or jogging with arms swing naturally.
4) **Cause: Dead skin on chest.**
   Solution: Usually rubbing your skin with a towel will help.
5) **Cause: A thin layer of body grease insulate the ECG signal which prevents the Chest Strap or Watch from picking up one's ECG.**
   Solution: Wipe chest and the back of Chest Strap with a tissue or soft towel.
6) **Cause: Hairy skin.**
   Solution: Apply conductive gel to chest area or wrist.
7) **Cause: Irregular heartbeats.**
   Solution: N/A It is difficult to consistently pick up a reading for those with irregular heart beats. Inconsistent response times are expected for those with arrhythmia.
8) **Cause: Battery Low.**
   Solution: It might be due to the battery level of the Chest Strap / watch is low. Replace the battery and try again.
9) **Cause: Interference of other RF devices (Chest-Strap Measurement)**
   Solution: Depart from the place where RF source potentially exist.

6 Recall Mode - Summary Display



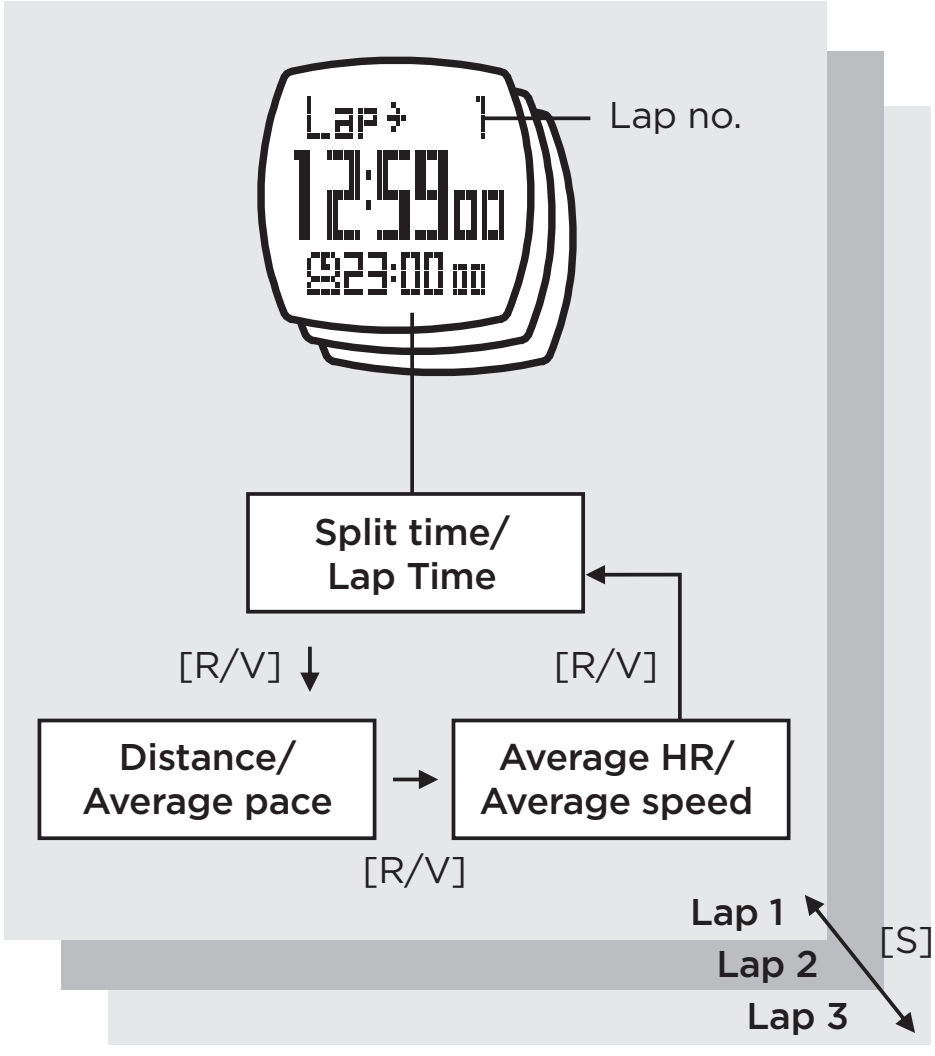
Recall Mode

- User can review the Segment Session in details here.
- It can store up to 10 Segment Sessions with 100 Lap Records.
- Each segment contains Summary and Lap Record display.

Summary Display

- User can review the summary information for Segment session.
- Press [S] to select the Workout session.
- Press [R/V] to review the summary information as adjacent diagram.
- Press [S/L] to enter Lap Record display.

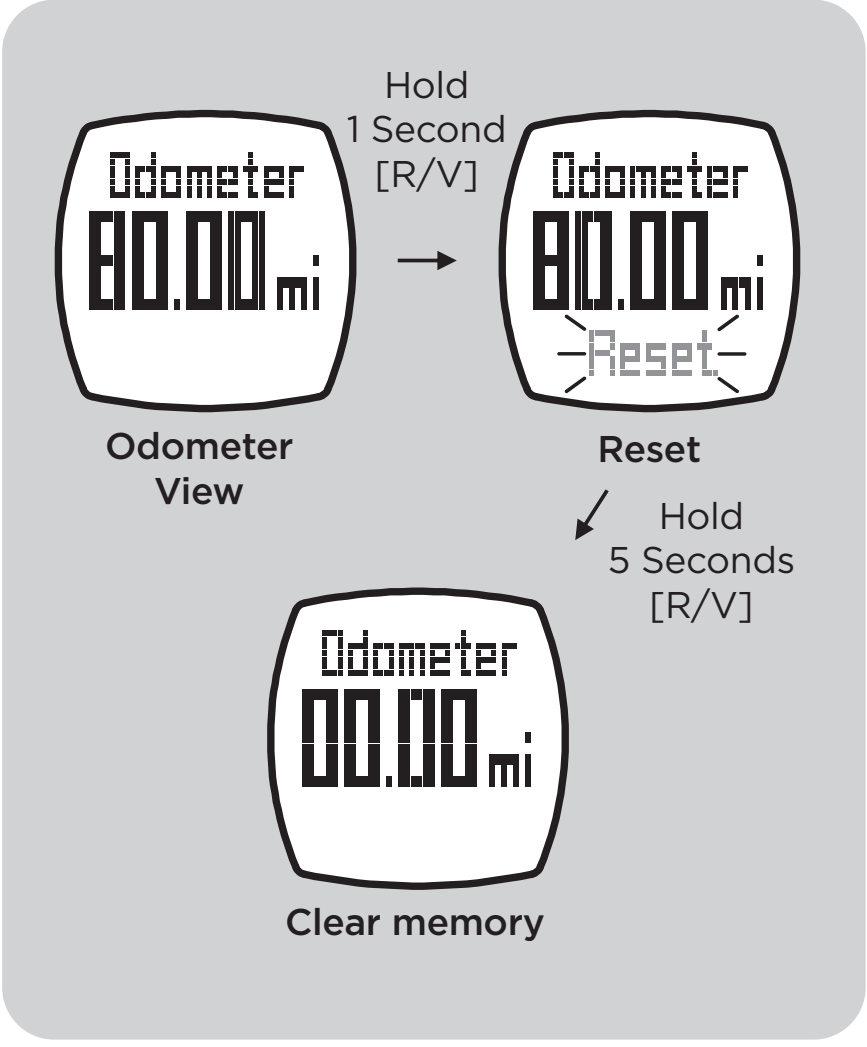
6.1 Recall Mode - Lap Record Display



Lap Record Display

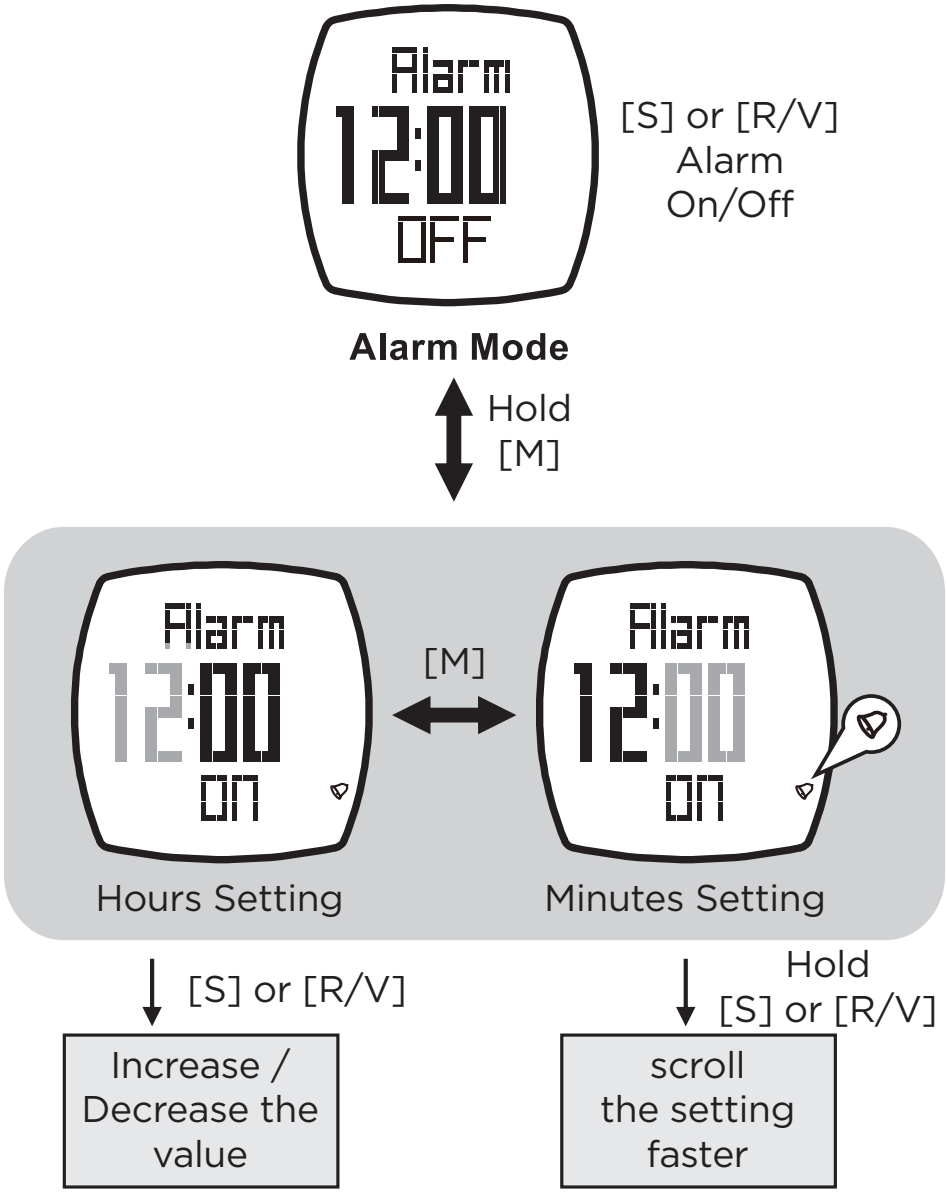
- User can review the information for each lap
- Press [S] to select the lap record
- Press [R/V] to review the lap information as adjacent diagram
- Press [S/L] to return to Summary Display

6.2 Recall Mode - Clear Odometer



- Odometer is used to count the travelled distance until next reset.
- Select the Odometer Session by pressing [R/V].
- Hold [R/V], display will show “Reset” and keep holding [R/V] button for more 5 seconds.
- Odometer Session will be cleared to zero.

7 Alarm Mode



Daily Alarm Display

- In the Daily Alarm Display, Alarm Time (hours, minutes) appears on the 2 row of the display.

Daily Alarm ON and OFF

- When the Daily Alarm Indicator ' ' appears (which means the daily alarm is ON), the watch starts beeping at the alarm time.

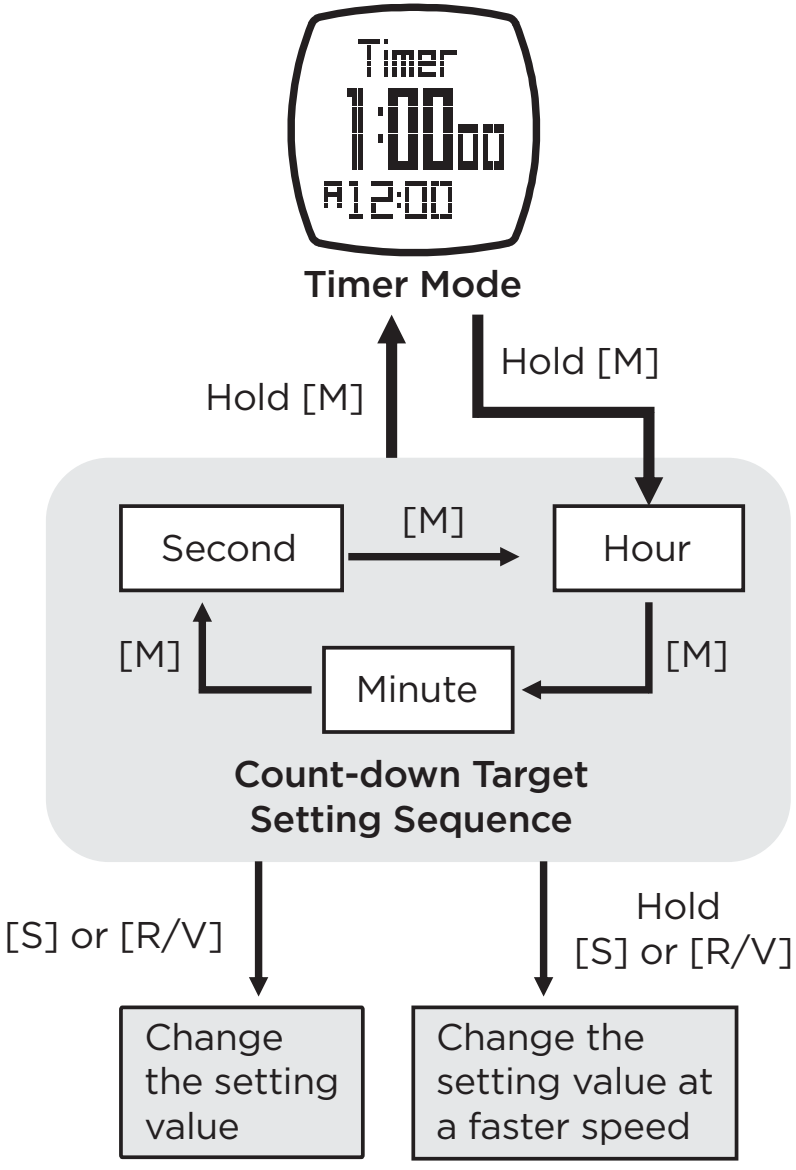
Daily Alarm Sound

- The alarm beeps for 30 seconds when the daily alarm function is turned ON.
- You can stop the beeping by pressing any button.

Note:

Alarm will be turned on automatically if any changes has been made to the setting

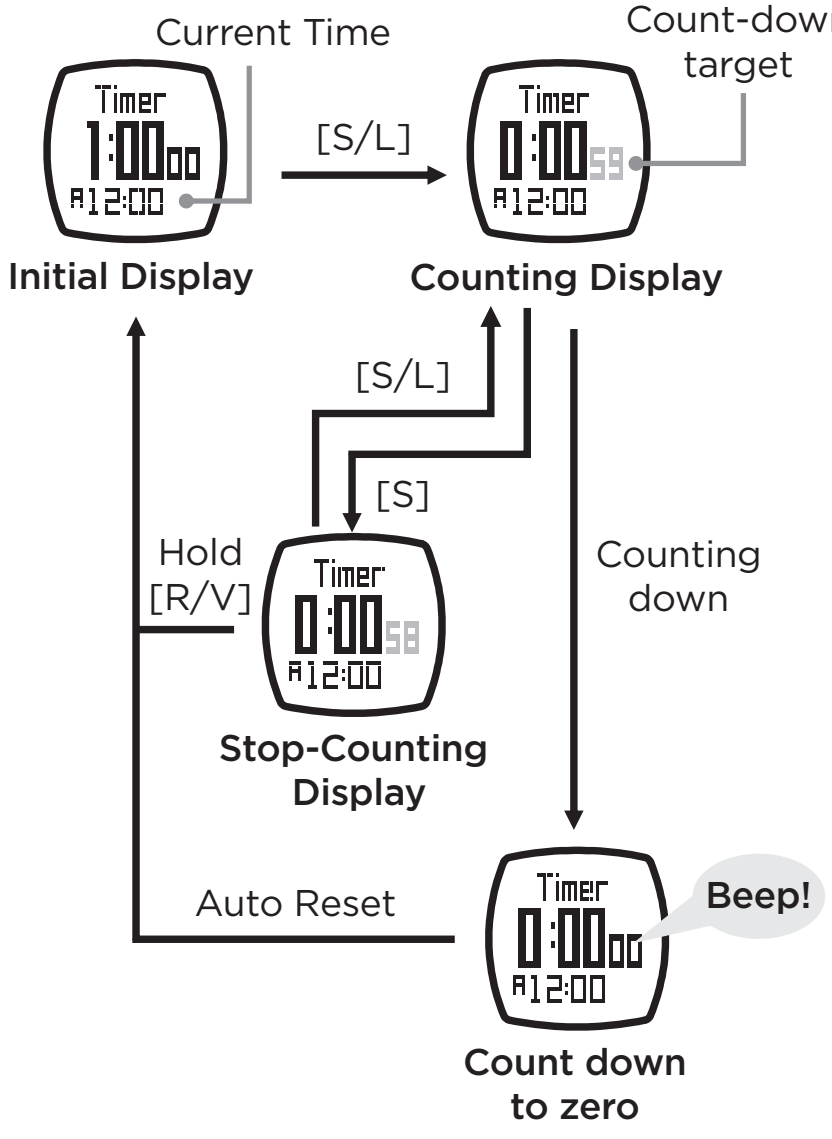
8 Timer Mode - Setting Count-down Target



How to Set Count-down Target

- In the Timer Mode, hold [M] to enter the Count-down Target setting display:
  - Press [M] to select 'hour', 'minute', or 'second' setting (flashing).
  - Press [S] or [R/V] to change the setting value (Hold [S] or [R/V] to change the setting value at a faster speed).
  - When the setting is completed, hold [M] to exit the setting display and return to the Timer Mode.
  - When no key is pressed for more than 1 minute, the watch will return to the Timer Mode automatically.

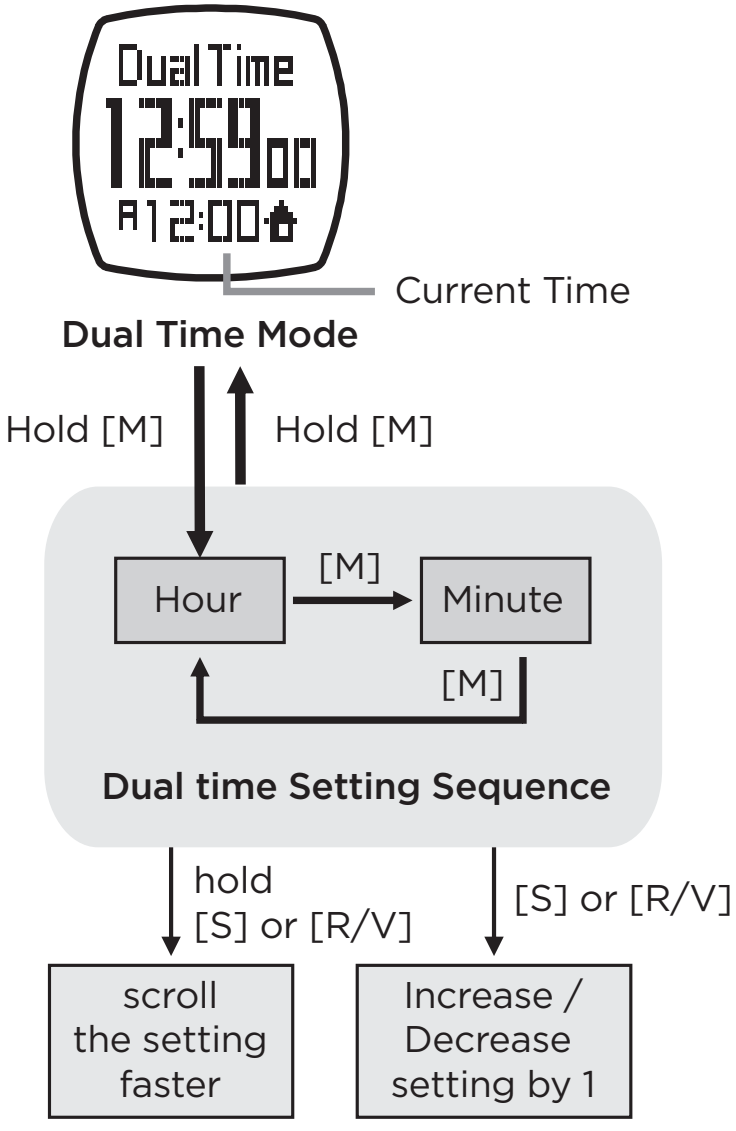
8.1 Timer Mode - Using the Count down Timer



How to use Count down timer

- Press [S/L] to start counting when the timer is stopped. Press [S] again to stop counting when the timer is running.
- The timer beeps once per minute at the last 10 minutes.
- It beeps once per 10 seconds at the last minute.
- It beeps every second when counting down to the last 5 seconds.
- When the timer reaches to zero, it beeps for 30 seconds. After that it will reset to initial count-down target automatically.
- Press any key to turn off the beep sound.
- When the timer is stopped hold, [R/V] for 2 seconds to reset the timer to the initial count-down target.

9 Dual Time Mode



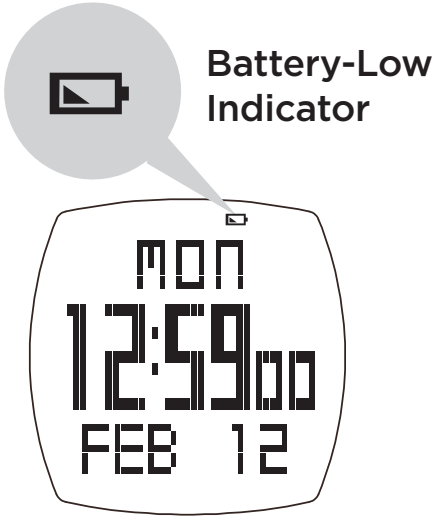
To Set the Dual time Mode

- To set Dual time mode, press and hold the [M] button under Dual Time Mode (the *'Hour'* digits will start flashing)

The Setting Sequence

- When the *'Hour'* digits start to flash, press the [M] button to move the flash following the sequence of the adjacent diagram.
- When one of the settings (hour, minute) is flashing, press the [S] or [R/V] button to scroll through the setting (hold down the button to scroll the setting at a faster pace).
- Press and hold the [M] button to exit the setting sequence.

10 Battery - Battery Low Indication and Battery Replacement



Battery Low Detection

- When the battery-low indicator appears on the display, it means that the capacity of the battery is low.
- However, if the appearance of battery-low indicator is caused by using the Watch under very cold condition, the indicator will be disappeared when normal temperature returns.

NOTE: It is recommended to complete the battery replacement by a certified service agency, because this Watch contains precise electronic sensors and components.

IMPORTANT: If the battery has been replaced, all memory will be cleared.

11 Care and Maintenance

- This watch contains electronic components. Never attempt to open the case or remove the back cover.
- Avoid exposing the watch to extreme temperature, chemicals which will damage the watch.
- Keep the watch away from the conditions of strong electric field and static electricity.
- Avoid rough usage or severe impact. The watch is designed to withstand impact under normal use. It is advisable to subject it to severe impact or rough usage.
- Clean your watch occasionally with a soft moistened cloth only. Avoid using chemicals, especially soap as the waterproof gasket will corrode.
- Store the watch in a dry place when it is not in use.

12 Precautions for Straps

- Exposure to water often makes a strap fragile and it may soon tear.
- Don’t apply perfume or moisturizers around your wrist as the chemicals can erode the metal, leather and plastic of watch straps.
- The strap’s condition will depend on the owner’s wearing habits as well as the climate of the place where the person lives. An original replacement on straps is possible to be re-ordered through an authorized service center.
- PU straps are usually very hardwearing, please wash them with mild soapy water only.
- There may be discoloration for light color and transparent straps after normal wear for some time.
- In case if there is any severe or persistent skin reaction, such as severe redness, itching, rash or hives, you should stop wearing this watch, and consult your doctor.

13 Precautions for Water Resistance

All New Balance watches are designed to withstand use as indicated on the below chart.

Indication	Water-related use		
Level of resistance	**Light spray perspiration, light rain, etc**	**Bathing, etc**	**Swimming, etc**
3 ATM (30 meters)			
5 ATM (50 meters)			
10 ATM (100 meters)			

- Water damage may occur if the push buttons are pressed under water.
- Should water or condensation appear in the watch, please check the watch immediately as corrosion of electronic parts can occur inside the case.

Precautions for Battery

Battery Life

The battery in your New Balance watch is estimated to last for 2 years.

Battery Replacement

If the watch is out of battery, you are recommended to go to the authorized New Balance service center for correct battery replacement in order to retain a valid warranty and avoid any damage on the water resistance function.

WARNING!

Always keep watch batteries away from children. If swallowed, contact a doctor immediately. Batteries contain chemical substances. They should be disposed of properly according to local regulations.

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